



AF/2837
\$
2000P07639US01
60427-252

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Stuart
Serial No.: 09/838,472
Filed: April 19, 2001
Group Art Unit: 2837
Examiner: McCloud, Renata D.
Title: CLAMLESS HOSE RETINER MECHANISM

RECEIVED

FEB 25 2004

MAILSTOP APPEAL BRIEF

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Dear Sir:

Subsequent to the filing of the Notice of Appeal on December 10, 2003, Appellant hereby submits its brief. A check in the amount of \$330.00 is enclosed. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

REAL PARTY IN INTEREST

The real party in interest is Siemens Canada Limited, the assignee of the entire right and interest in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1 and 11 stand finally rejected under 102(b), and claims 4-7, 12, 15-17 and 20 stand rejected under 103(a). Claims 21-24 have been allowed, and claims 2, 3, 8-10, 13, 14, 18 and 19 are objected to for depending on rejected base claims 1 and 12.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF THE INVENTION

As shown in Figure 1, this invention relates to an air supply assembly including a resonator component 14 having a hose opening 30 and a tube opening 26. A hose 20 is inserted into the hose opening 30, and a tube 18 is inserted in the tube opening 26. A tapered end 46 of the tube 18 is inserted within the hose 20 to seal and retain the hose 20 against the hose opening 30 (specification, paragraph 19, Figure 1). These basic features are claimed in independent claim 1. Independent claim 12 includes the features of claim 1 and additionally recites an air cleaner component 12 and an intake manifold component 16.

Claims 4 and 15, which depend on claims 1 and 12, respectively, recite that the tube 18 includes a retention end 42 opposite to the tapered end 46 to which an air cleaner component 12 is attached (specification, paragraph 21). Claims 5 and 16 depend on claims 1 and 12, respectively, and add that the retention end 42 includes a recessed portion 50 between a pair of flanges 52, 54 (specification, paragraph 22). Claims 6 and 17 depend on claims 5 and 16, respectively, and add that the tube opening 26 includes a neck 28 that engages the recessed portion 50 of the tube 18 to secure the tube 18 to the resonator component 14 (specification, paragraph 21). Claim 7 also depends on claim 1 and adds that the hose 20 is connected to an intake manifold component 16 (specification, paragraph 18).

ISSUES

1. Are Claims 1 and 11 properly rejected under 35 U.S.C. 102(b) based on Sheehan?
2. Are Claims 4-7, 12, 15-17 and 20 properly rejected under 35 U.S.C. 103(a) based on Sheehan in view of Akima?

GROUPINGS OF CLAIMS

- A. Claims 1 and 11 stands or falls together.
- B. Claims 4 and 15 stands or falls together.
- C. Claims 5 and 16 stands or falls together.
- D. Claims 6 and 17 stands or falls together.
- E. Claim 7 stands or falls alone.
- F. Claims 12 and 20 stands or falls together.

PATENTABILITY ARGUMENTS

A. The rejection of Claims 1 and 11 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 1 and 11 as being anticipated by Sheehan (U.S. Patent No. 5,214,254). Sheehan teaches a triple cone exhaust wave tuner 10. A tubular perforated sleeve 13 is inserted in an opening in the tuner 10, and a tuning pipe 12 is inserted in the perforated sleeve 13. As shown in Figure 2, the tuning pipe 12 and the perforated sleeve 13 are both inserted into the same opening of the tuner 10. The Examiner argues that Sheehan teaches that the device 10 includes both a hose opening and a tube opening, and therefore Claims 1 and 11 are anticipated. Appellant respectfully disagrees.

The present invention is patentable over and strikingly different from Sheehan. As described by the claims, the present invention provides an air supply assembly having:

... a resonator component including a hose opening and a tube opening; a hose inserted into said hose opening of said resonator component; and a tube inserted into said tube opening of said resonator component...

[See Claim 1]. Claims 1-24 of the present invention all share this same or similar feature. [See Claims 1-24].

Claims 1 and 11 recite that the resonator component includes a tube opening that receives a tube and a hose opening that receives a hose. The tuner 10 of Sheehan does not include both an opening that receives the tuning pipe 12 and an opening that receives the perforated sleeve 13 as claimed. The perforated sleeve 13 of Sheehan, which the Examiner is calling the hose, is inserted into an opening in the tuner 10 (Figure 2). The tuning pipe 12 of Sheehan, which the Examiner is calling the tube, is inserted in an opening in the perforated sleeve 13. When both the tuning pipe 12 and the perforated sleeve 13 are inserted into the tuner 10, they are both received in the same opening of the tuner 10. Therefore, in Sheehan, the opening for the perforated sleeve 13 is in the tuning pipe 12 and not in the tuner 10 like the claimed invention. Sheehan does not disclose that the tuner 10 includes an opening for the tuning pipe 12 and an opening for the perforated sleeve 13. Claims 1 and 11 are not anticipated by Sheehan, and Appellant respectfully requests that the rejection be withdrawn.

B. The rejection of Claims 4 and 15 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 4 and 15 under 35 U.S.C. 103(a) as being obvious over Sheehan in view of Akima (U.S. Patent No. 5,900,595). Claim 4 and 15 recite that a retention end of the tube opposite to the tapered end is attached to an air cleaner component. Akima teaches an intake silencer device including an air cleaner component 10. Air flows through the intake 8, through an air filter element 10, and into an engine 1 (shown in Figures 1 and 6). The Examiner states it would be obvious to attach an air cleaner component to an end of the tuning pipe 12 of Sheehan, and Claims 4 and 15 are obvious. Appellant respectfully disagrees.

Claims 4 and 15 are not obvious in view of the combination of Sheehan and Akima. There is no motivation to attach an air cleaner component to an end of the tuning pipe 12 of Sheehan. The tuner 10 of Sheehan controls the flowrate and noise of exhaust gases flowing from an internal combustion engine. The exhaust gases from the internal combustion engine are directed to the tuner 10. Akima teaches an air filter element 10 located before the engine 10. That is, air flows through the air filter element 10 **before** flowing into the engine 10. If Sheehan and Akima were truly combined, the combination would teach positioning the air filter element in Sheehan such that the air

would flow through the air filter element before flowing through the internal combustion engine. At this location, it is impossible for the air filter element to be attached to the end of the tuning pipe 12 due to the presence of the internal combustion engine between the tuner 10 and the air filter elements.

For the sake of argument, if the air cleaner component was attached to the tuning pipe 12 of Sheehan, the air filter element would be located **after** the engine. Air would flow through the engine, then flow through the tuner 10, and then flow through the air filter element. As explicitly taught by Akima, however, air filter elements are positioned to clean air entering the engine and not positioned to clean air exiting the engine. Thus, there is no motivation to locate an air filter element at this location. It is not obvious to attach an air cleaner to the tuning pipe 12 of Sheehan, and Appellant's claims are not obvious.

C. The rejection of Claims 5 and 16 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 5 and 16 under 35 U.S.C. 103(a) as being obvious over Sheehan in view of Akima. Claim 5 and 16 recite a tube including a retention end, opposite to the tapered end, having a recessed portion between a pair of flanges. The Examiner states that Akima teaches a retention end including a recessed portion between a pair of tabs 11₂, and it would be obvious to employ these features in Sheehan. Appellant respectfully disagrees.

Claims 5 and 16 are not obvious in view of the combination of Sheehan and Akima. There is no motivation to add a recessed portion between a pair of tabs on an end of the tuning pipe 12. As shown in Figure 2, nothing contacts or is attached to either end of the tuning pipe 12. Therefore, there is no reason or motivation to add these features to the ends of the tuning pipe 12. The rejection is improper, and Appellant respectfully requests that the rejection be withdrawn.

D. The rejection of Claims 6 and 17 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 6 and 17 under 35 U.S.C. 103(a) as being obvious over Sheehan in view of Akima. Claim 6 and 17 recite that a neck of the tube opening of the resonator component engages the recessed portion of the tube. The Examiner states that Akima teaches a

device having a neck that engages a recessed portion of a tube, and it would be obvious to employ these feature in Sheehan. Appellant respectfully disagrees.

Claims 6 and 17 are not obvious in view of the combination of Sheehan and Akima. In Sheehan, it is not possible for the neck of the opening of the tuner 10 to engage the tuning pipe 12. As shown in Figure 2 of Sheehan, the perforated sleeve 13 is located between the tuning pipe 12 and the tuner 10. Therefore, due to the presence of the perforated sleeve 13, it is not possible for the neck of the opening of the tuner 10 of Sheehan to engage the tuning pipe 12. Claims 6 and 17 are not obvious, and Appellant requests that the rejection be withdrawn.

E. The rejection of Claim 7 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claim 7 under 35 U.S.C. 103(a) as being obvious over Sheehan in view of Akima. Claim 7 recites that the hose is connected to an intake manifold component. The Examiner admits that Sheehan does not teach a hose connected to an air intake manifold component. The Examiner states that Akima teaches a hose connected to an intake manifold component and would be obvious to modify Sheehan to connect the perforated sleeve 13 to an air intake manifold component. Applicant respectfully disagrees.

Claim 7 is not obvious in view of the combination of Sheehan and Akima. It is not possible to connect an air intake manifold component to the perforated sleeve 13 of Sheehan. As shown in Figure 2, the perforated sleeve 13 is short and the tuning pipe 12 extends from both ends of the perforated sleeve 13. Due to the length of the perforated sleeve 13, it is not possible to connect an intake manifold component, or any other component, to an end of the perforated sleeve 13. Claim 7 is not obvious in view of the combination of Sheehan and Akima, and Appellant respectfully requests that the rejection be withdrawn.

F. The rejection of Claims 12 and 20 under 35 U.S.C. 103(a) is improper.

The Examiner finally rejected Claims 12 and 20 under 35 U.S.C. 103(a) as being obvious over Sheehan in view of Akima. Claims 12 and 20 recite an air supply assembly including an air cleaner component and an intake manifold component. The Examiner states that Akima teaches an

air cleaner component and an intake manifold component, and claims 12 and 20 are obvious. Appellant respectfully disagrees.

Claims 12 and 20 are not obvious in view of the combination of Sheehan and Akima. Even if Sheehan and Akima were combined, the combination would not teach, suggest or disclose Claims 12 and 20. The claims recite that the resonator component includes a tube opening that receives a tube and a hose opening that receives a hose. The tuner 10 of Sheehan does not include both an opening that receives the tuning pipe 12 and an opening that receives the perforated sleeve 13 as claimed, but rather discloses one opening that receives both the perforated sleeve 13 and the tuning pipe 12. Even if an air cleaner component and an intake manifold component were added to Sheehan, the combination would still not teach a resonator component having an opening for the perforated sleeve 13 and an opening for the tuning pipe 12. Claims 12 and 20 are not obvious in view of Sheehan and Akima, and Appellant respectfully requests that the rejection be withdrawn.

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Appellant respectfully requests such an action.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.



Karin H. Butchko
Registration No. 45,864
Attorney for Appellant
400 West Maple Road, Suite 350
Birmingham, Michigan 48009
(248) 988-8360

Dated: February 10, 2004

2000P07639US01
60427-252

CERTIFICATE OF MAIL

I hereby certify that the enclosed Appeal Brief is being deposited in triplicate with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 10, 2004.


Amy M. Spaulding

CLAIM APPENDIX

1. An air supply assembly comprising:
a resonator component including a hose opening and a tube opening;
a hose inserted into said hose opening of said resonator component; and
a tube inserted into said tube opening of said resonator component, said tube including a tapered end inserted within said hose to seal and retain said hose against said hose opening of said resonator component.
2. The air supply assembly as recited in claim 1 wherein said hose includes an interior surface having an inclined portion.
3. The air supply assembly as recited in claim 2 wherein said tapered end of said tube slides along said inclined portion of said hose during insertion of said tube within said hose.
4. The air supply assembly as recited in claim 1 wherein said tube includes a retention end opposite to said tapered end, and an air cleaner component is attached to said retention end of said tube.
5. The air supply assembly as recited in claim 1 wherein said tube includes a retention end opposite to said tapered end and said retention end includes a recessed portion between a pair of flanges.
6. The air supply assembly as recited in claim 5 wherein a neck of said tube opening of said resonator component engages said recessed portion of said tube to secure said tube to said resonator component.

7. The air supply assembly as recited in claim 1 wherein said hose is connected to an intake manifold component.
8. The air supply assembly as recited in claim 1 further including a plurality of protrusions on an exterior surface of said hose to assist in sealing said hose against said hose opening.
9. The air supply assembly as recited in claim 1 wherein said hose further includes an interior hose projection which substantially contacts an inner surface of said resonator component and secures said hose to said resonator component.
10. The air supply assembly as recited in claim 9 herein said hose further includes an exterior hose projection which engages an outer surface of said resonator component to secure said hose to said resonator component.
11. The air supply assembly as recited in claim 1 wherein said tube includes a plurality of openings that communicate an interior of said tube into a resonator chamber of said resonator component.
12. An air supply assembly comprising:
 - a resonator component including a hose opening and a tube opening;
 - an air cleaner component;
 - an intake manifold component;
 - a hose inserted into said hose opening of said resonator component; and
 - a tube inserted into said tube opening of said resonator component, said tube including a tapered end inserted within said hose to seal and retain said hose against said hose opening.

13. The air supply assembly as recited in claim 12 wherein said hose includes an interior surface having an inclined portion.
14. The air supply assembly as recited in claim 13 wherein said tapered end of said tube slides along said inclined portion of said hose during insertion of said tube within said hose.
15. The air supply assembly as recited in claim 12 wherein said tube includes a retention end opposite to said tapered end, and said air cleaner component is attached to said retention end of said tube.
16. The air supply assembly as recited in claim 12 wherein said tube includes a retention end opposite to said tapered end and said retention end includes a recessed portion between a pair of flanges.
17. The air supply assembly as recited in claim 16 wherein a neck of said tube opening of said resonator component engages said recessed portion of said tube to secure said tube to said resonator component.
18. The air supply assembly as recited in claim 12 further including a plurality of protrusions on an exterior surface of said hose to assist in sealing said hose against said hose opening.
19. The air supply assembly as recited in claim 12 wherein said hose further includes an interior hose projection which substantially contacts an inner surface of said resonator component and secures said hose to said resonator component.

20. The air supply assembly as recited in claim 12 wherein said tube includes a plurality of openings that communicate an interior of said tube into a resonator chamber of said resonator component.

21. An air supply assembly comprising:

a resonator component including a hose opening;

a hose inserted into said hose opening, said hose including a plurality of protrusions on an exterior surface of said hose that assists in sealing said hose against said hose opening; and

a tube including a tapered end, and said tapered end is inserted within said hose to seal and retain said hose against said hose opening.

22. An air supply assembly comprising:

a resonator component including a hose opening;

a hose inserted into said hose opening, said hose including an interior hose projection which engages an inner surface of said resonator component to secure said hose to said resonator component; and

a tube including a tapered end, said tapered end inserted within said hose to seal and retain said hose against said hose opening.

23. An air supply assembly comprising:

a resonator component including a hose opening;

an air cleaner component;

an intake manifold component;

a hose inserted into said hose opening, said hose including a plurality of protrusions on an exterior surface of said hose that assists in sealing said hose against said hose opening; and

a tube including a tapered end, said tapered end inserted within said hose to seal and retain said hose against said hose opening.

24. An air supply assembly comprising:
 - a resonator component including a hose opening;
 - an air cleaner component;
 - an intake manifold component;
 - a hose inserted into said hose opening, said hose including an interior hose projection which engages an inner surface of said resonator component to secure said hose to said resonator component; and
 - a tube including a tapered end, and said tapered end is inserted within said hose to seal and retain said hose against said hose opening.

N:\Clients\siemens\airfuelmodules\p00252\PATENT\252ppealbrief.doc